

WHAT IS CLAIMED IS:

1. A thin plate supporting container comprising a container body for housing therein a plurality of thin plates, a lid unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body and supporting the thin plates housed on the inside from both sides, comprising

an upper fitting portion for supporting an upper portion of the slotted plate to the container body side, and a lower fitting portion for supporting a lower portion of the slotted plate to the container body side,

the upper fitting portion comprising an upper fitting piece fixed, at least, at both ends of each of the side walls facing each other in the container body, and an upper receiving piece fixed in a position, facing the upper fitting piece, of the slotted plate,

the upper fitting piece having a contact face having a flat plane shape which comes into contact with the slotted plate side to thereby position the slotted plate in the front/rear direction while preventing rotation of the slotted plate, and a supporting face for supporting the contact face in a state where the contact face is in contact with the slotted plate side, and

the upper receiving piece having a face to be contacted having a flat plane shape which comes into contact with the contact face of the upper fitting piece to thereby position the slotted plate in the front/rear direction while preventing rotation of the slotted plate, and a face to be supported

which comes into contact with the supporting face of the upper fitting piece to thereby support the face to be contacted in a state where the face to be contacted is in contact with the contact face of the opposite side.

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2. A thin plate supporting container comprising by a container body for housing therein a plurality of thin plates, a lid unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body for supporting the thin plates housed on the inside from both sides, comprising

an upper fitting portion for supporting an upper portion of the slotted plate to the container body side, and a lower fitting portion for supporting a lower portion of the slotted plate to the container body side, and

the lower fitting portion having a vertical-direction positioning means for positioning the slotted plate in the vertical direction, horizontal-direction positioning means for performing positioning in the horizontal direction, and a front/rear-direction positioning means for performing positioning in the front/rear direction.

3. The thin plate supporting container according to claim 2, wherein the vertical-direction positioning means has a vertical-direction supporting piece which is fixed on a lower portion of each of side walls facing each other in the container body and is fit in a lower portion of the slotted plate, and comes into contact with a lower end of the slotted plate,

thereby performing positioning in the vertical direction of the slotted plate.

4. The thin plate supporting container according to claim 5 2, wherein the horizontal-direction positioning means has a notch formed in a lower portion of the slotted plate, and a horizontal-direction supporting piece which is fixed on a lower portion of each of side walls facing each other in the container body, fits with the notch in the lower portion 10 of the slotted plate, and performs positioning in the horizontal direction of the slotted plate.

5. The thin plate supporting container according to claim 2, wherein the front/rear direction positioning means has 15 a front/rear direction supporting piece which is fixed so as to extend from the lower portion of the slotted plate to a back side of the slotted plate, and contacts with the lower portion of a side wall of the container body, thereby positioning the slotted plate in the front/rear direction.

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6. The thin plate supporting container according to claim 2, wherein a stopper for stopping disengagement to the above 25 of the slotted plate by being locked to the container body side, the stopper being fixed on a lower portion of the slotted plate.

7. A thin plate supporting container comprising a container body for housing therein a plurality of thin plates, a lid

unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body for supporting the thin plates housed on the inside from both sides,

5            wherein the slotted plate is constructed by arranging a plurality of plate pieces for supporting the plurality of thin plates one by one,

             the plate piece is extended from an inner side of the container body to an outlet/inlet port of the thin plate and  
10            is formed so that a portion from the inner side to an intermediate position is curved along the periphery of the thin plate and a portion from the intermediate position to the outlet/inlet port is along the container body side,

             on the inner side and the outlet/inlet port side in  
15            the plate piece, thin plate supporting projections for supporting the thin plates are fixed, and the thin plate supporting projection on the outlet/inlet port side is fixed around an intersecting point of an inner periphery of the plate piece and the periphery of the thin plate.

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8.        A thin plate supporting container comprising a container body for housing therein a plurality of thin plates, a lid unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body for  
25            supporting the thin plates housed on the inside from both sides,

             wherein a gasket is fixed between the lid unit and the container body,

the gasket has a base end supporting portion for supporting the whole by being fit to the lid unit side or container body side, and a contact portion formed so as to extend from the base end supporting portion,

5           the contact portion is formed by being expanded from the base end supporting portion into a flange shape, making its intermediate portion swollen upward, and making an outer periphery folded downward, and

10           the intermediate portion is pressed against the lid unit side or the body side in a state where the periphery is in contact with the container body side or the lid unit side, thereby making the periphery closely attached to the container body side or the lid unit side by elastic force of the contact portion.

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9.       The thin plate supporting container according to claim 8, further comprising:

20           a seal piece which is fixed on the inner side of an upper surface of a base end supporting portion of the gasket, is extended upward, and comes into contact with the lid unit side or container body side; and

          an annular groove fixed on the outer side of the seal piece and absorbing elastic deformation of the seal piece.

25       10.   A thin plate supporting container comprising a container body for housing therein a plurality of thin plates, a lid unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body for

supporting the thin plates housed on the inside from both sides,

wherein a bottom plate of the container body is set so that a gap between the bottom plate and the lower end of the thin plate housed in the container body is set minimum,  
5 enough to absorb shock.

11. The thin plate supporting container according to claim 10, wherein height of the container body is reduced only by  
10 an amount corresponding to reduction in the gap between the bottom plate of the container body and the lower end of the thin plate housed in the container body.

12. A thin plate supporting container comprising a container  
15 body for housing therein a plurality of thin plates, a lid unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body and supporting the thin plates housed on the inside from both sides,

20 wherein an attaching/detaching mechanism is fixed for detachably attaching any one of a top flange for a carrying mechanism and a handle held by the user or both to the container body,

the attaching/detaching mechanism has a sliding and  
25 supporting means for slidably supporting the container body and the top flange or handle so that the two members are slidable on each other, and locking means for locking the two members slidably supported by the sliding and supporting means so

as not to be deviated from each other,

the sliding and supporting means includes a supporting portion fixed on one of members and a sliding portion which is fixed on the other member and is to be inserted into the supporting portion from the front side to the inner side,

the locking means has a locking projection fixed on the one of members or the other member, and a locking pawl fixed on the other or one of members,

the locking pawl is constructed by a contact portion which comes into contact with the locking projection and a supporting bar portion for supporting the contact portion, and

the supporting bar portion is formed so as to extend to the other-side member and to the front side of the sliding and supporting means.

13. The thin plate supporting container according to claim 12, wherein the contact portion of the locking pawl is fixed on the side of the other-side member than the base end portion of the supporting bar portion.

14. The thin plate supporting container according to claim 12, wherein two supporting portions and two sliding portions of the sliding and supporting means are placed in parallel, and each of the interval between the supporting portions and the interval between the sliding portions is set to be small on the front side and to be large on the inner side.

15. The thin plate supporting container according to claim 12, further comprising guide rails for guiding two members supported by the sliding and supporting means so as to slide and performing positioning in a direction orthogonal to the sliding direction.

16. A thin plate supporting container comprising a container body for housing therein a plurality of thin plates, a lid unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body for supporting the thin plates housed on the inside from both sides,

wherein the lid unit is fixed with a latch mechanism for fixing the lid unit to the container body,

the latch mechanism is constructed by a first arm locked to the container body side to fix the lid unit to the container body, and a second arm swingably supported by the lid unit and swingably supporting the first arm,

the first arm comprises a locking pawl which is fixed on a base end portion of the first arm and comes into contact with the container body side, and a grip which is fixed at a tip portion and is positioned in a side of the lid unit in a state where the first and second arms swing to each limit, and

the second arm swings to a position where the locking pawl of the base end portion of the first arm does not come into contact with the container body in a state where the first arm swings to the limit.



17. The thin plate supporting container according to claim 16, wherein the first arm is open up to 90° with respect to the second arm and the second arm is open up to 35° with respect to the container body.

18. A thin plate supporting container comprising a container body for housing therein a plurality of thin plates, a lid unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body for supporting the thin plates housed on the inside from both sides,

wherein a thin plate pressing member is fixed on the back face of the lid unit, the thin plate pressing member for supporting thin plates by pressing an upper portion of a thin plate housed in the container body when the lid unit is attached to the container body,

fitting grooves by which the thin plates are fit and supported are fixed on the thin plate pressing member, the fitting groove being formed at an acute angle so as to catch the periphery of the thin plate.

19. A thin plate supporting container comprising a container body for housing therein a plurality of thin plates, a lid unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body for supporting the thin plates housed on the inside from both sides,

wherein a thin plate pressing member is fixed on the back face of the lid unit, the thin plate pressing member for supporting thin plates by pressing an upper portion of a thin plate housed in the container body when the lid unit  
5 is attached to the container body,

the thin plate pressing member has a number of pressing bands which are arranged in parallel, comes into contact with the periphery of the thin plate, and supports the thin plates at predetermined intervals one by one, and the pressing bands  
10 are formed in a wave shape along the peripheries of the thin plates.

20. A thin plate supporting container comprising a container body for housing therein a plurality of thin plates, a lid  
15 unit for closing the container body, and slotted plates fixed on side walls facing each other in the container body for supporting the thin plates housed on the inside from both sides,

wherein a body positioning means for positioning the whole container body is fixed on the bottom of the container  
20 body disposed transversely, and

the body positioning means includes V-shaped groove plate pieces constructing V-shaped grooves placed in three positions in three directions on the bottom of the container  
25 body, and supporting stands for supporting the V-shaped groove plate pieces.

21. The thin plate supporting container according to claim

20, wherein the V-shaped groove plate piece is made of a material having low surface friction resistance.

22. The thin plate supporting container according to claim  
5 20, wherein the V-shaped groove plate piece is detachably attached to the supporting stand.